# EXCELSIOR BEACH WATER SYSTEM (PWSNO 1280068)
# SOURCE WATER ASSESSMENT REPORT

**March 20, 2001**

## State of Idaho
## Department of Environmental Quality

## Source Water Assessment for Excelsior Beach Water System

Under the Federal Safe Drinking Water Act Amendments of 1996, all states are required by the U.S. Environmental Protection Agency (EPA) to assess every source of public drinking water for its relative sensitivity to contaminants regulated by the Act. The Idaho Department of Environmental Quality is completing the assessments for all Idaho public drinking water systems. The assessment for your particular drinking water source is based on a land use inventory within the small watershed that feeds your spring, sensitivity factors associated with the source and characteristics associated with your watershed. Excelsior Beach Water System elected not to participate in the potential contaminant inventory for the watershed.

This report, *Source Water Assessment for Excelsior Beach Water System* describes the public drinking water system, the associated potential contaminant sources located within a the watershed, and the susceptibility (risk) that may be associated with any associated potential contaminants. This assessment should be used as a planning tool, taken into account with local knowledge and concerns, to develop and implement appropriate protection measures for this system. **The results should <u>not be</u> used as an absolute measure of risk and are not intended to undermine the confidence in your water system.**

The Excelsior Beach Water System drinking water source is a spring in a small watershed on the south side of Twin Lakes. A portion of the watershed was logged in 1985. Water from the spring is piped to a surface impoundment then is fed into a slow sand filter and chlorinator. The system is currently disapproved.

The source is at high risk for microbial contamination based on water sampling results from 1994, 1995, 1997 and 1998. Samples tested in July 1998 and September 1997 showed the presence of E. coli, which can indicate fecal contamination of the drinking water from wildlife, livestock or sewage. The testing laboratory rejected water samples with high chlorine residuals in 1996 and 1998. The water system tests annually for nitrates. Since 1998 concentrations have ranged between 0.752 and 0.684 mg/l. The Maximum Contaminant Level for nitrate is 10.0 mg/l. A copy of the susceptibility analysis for your system along with a map showing the watershed boundaries is included with this report.

This assessment should be used as a basis for determining appropriate new protection measures or re-evaluating existing protection efforts. No matter what ranking a source receives, protection is always important. Whether the source is currently located in a "pristine" area or an area with numerous industrial and/or agricultural land uses, the way to ensure good water quality in the future is to act now to protect valuable water supply resources.

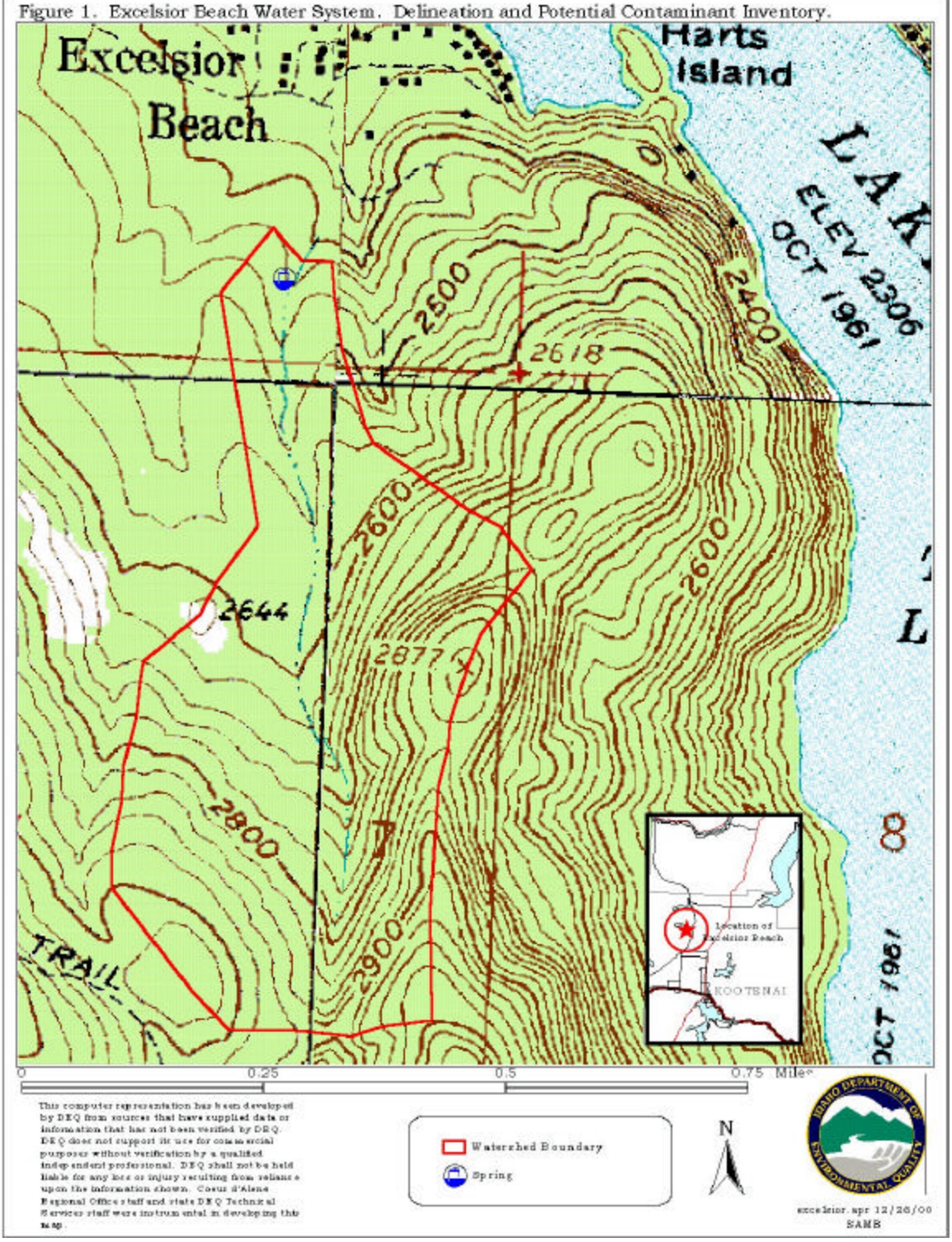
For Excelsior Beach Water System, source water protection activities should focus first on bringing the system into compliance with Idaho public water system regulations. The system needs to work with private landowners in the watershed to limit activities such as logging or road building, or grazing that could have a negative impact on water quality. The system operator and landowners should periodically tour the watershed to track any land use changes. Water system users should be encouraged to implement cross connection control measures, since cross connections can pull surface contaminants into the water distribution system. The water system should also encourage homeowners to maintain their septic systems properly. Source water protection activities should be aimed at long-term management strategies even though these strategies may not yield results in the near term.

For assistance in developing source water protection strategies please contact Tony Davis at the Coeur d'Alene Regional DEQ office at 208 769-1422.

**DEQ website:**

http://www.deq.state.id.us

Figure 1. Excelsior Beach Water System. Delineation and Potential Contaminant Inventory.

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# Attachment A

# Excelsior Beach Water System Susceptibility Analysis Worksheet

# Surface Water Susceptibility Report

Public Water System Name : **EXCELSIOR BEACH WATER SYSTEM** Source: **Spring**
Public Water System Number : **1280068**
12/26/00 2:04:03 PM

| **1. System Construction** | | **Score** |
|---|---|---|
| Intake structure properly constructed | YES | 0 |
| Infiltration gallery | | |
| | NO | 0 |
| ***Total System Construction Score*** | | **2** |

| **2. Potential Contaminant Source / Land Use** | | **IOC Score** | **VOC Score** | **SOC Score** | **Microbial Score** |
|---|---|---|---|---|---|
| Predominant land use type (land use or cover) | Woodland | 0 | 0 | 0 | 0 |
| Farm chemical use high | NO | 0 | 0 | 0 | |
| Significant contaminant sources * | YES | Microbial | | | |
| Sources of class II or III contaminants or Microbials | Present in water samples | 0 | 0 | 0 | 0 |
| Agricultural lands within 500 feet | NO | | | | |
| | | 0 | 0 | 0 | 0 |
| Three or more contaminant sources | NO | 0 | 0 | 0 | 0 |
| Sources of turbidity in the watershed | YES | 1 | 1 | 1 | 1 |
| ***Total Potential Contaminant Source / Land Use Score*** | | **1** | **1** | **1** | **1** |
| **3. Final Susceptibility Source Score** | | **3** | **3** | **3** | **3** |
| **4. Final Sourcel Ranking** | | Low | Low | Low | **High*** |

* **Source is considered Highly Susceptible based on water sampling results.**

The final scores for the susceptibility analysis were determined using the following formulas:

1) VOC/SOC/IOC Final Score = Hydrologic Sensitivity + System Construction + (Potential Contaminant/Land Use x 0.27)

2) Microbial Final Score = Hydrologic Sensitivity + System Construction + (Potential Contaminant/Land Use x 0.35)

Final Susceptibility Scoring:

0 - 5 Low Susceptibility

6 - 12 Moderate Susceptibility

> 13 High Susceptibility.

# POTENTIAL CONTAMINANT INVENTORY
# LIST OF ACRONYMS AND DEFINITIONS

**AST (Aboveground Storage Tanks) –** Sites with aboveground storage tanks.

**Business Mailing List –** This list contains potential contaminant sites identified through a yellow pages database search of standard industry codes (SIC).

**CERCLIS –** This includes sites considered for listing under the **Comprehensive Environmental Response Compensation and Liability Act (CERCLA)**. CERCLA, more commonly known as ASuperfund@ is designed to clean up hazardous waste sites that are on the national priority list (NPL).

**Cyanide Site –** DEQ permitted and known historical sites/facilities using cyanide.

**Dairy –** Sites included in the primary contaminant source inventory represent those facilities regulated by Idaho State Department of Agriculture (ISDA) and may range from a few head to several thousand head of milking cows.

**Deep Injection Well –** Injection wells regulated under the Idaho Department of Water Resources generally for the disposal of stormwater runoff or agricultural field drainage.

**Enhanced Inventory** – Enhanced inventory locations are potential contaminant source sites added by the water system. These can include new sites not captured during the primary contaminant inventory, or corrected locations for sites not properly located during the primary contaminant inventory. Enhanced inventory sites can also include miscellaneous sites added by the Idaho Department of Environmental Quality (DEQ) during the primary contaminant inventory.

**Floodplain –** This is a coverage of the 100year floodplains.

**Group 1 Sites –** These are sites that show elevated levels of contaminants and are not within the priority one areas.

**Inorganic Priority Area –** Priority one areas where greater than 25% of the wells/springs show constituents higher than primary standards or other health standards.

**Landfill –** Areas of open and closed municipal and non-municipal landfills.

**LUST (Leaking Underground Storage Tank)** – Potential contaminant source sites associated with leaking underground storage tanks as regulated under RCRA.

**Mines and Quarries** – Mines and quarries permitted through the Idaho Department of Lands.)

**Nitrate Priority Area –** Area where greater than 25% of wells/springs show nitrate values above 5mg/l.

**NPDES (National Pollutant Discharge Elimination System) –** Sites with NPDES permits. The Clean Water Act requires that any discharge of a pollutant to waters of the United States from a point source must be authorized by an NPDES permit.

**Organic Priority Areas –** These are any areas where greater than 25 % of wells/springs show levels greater than 1% of the primary standard or other health standards.

**Recharge Point –** This includes active, proposed, and possible recharge sites on the Snake River Plain.

**RICRIS –** Site regulated under **Resource Conservation Recovery Act (RCRA)**. RCRA is commonly associated with the cradle to grave management approach for generation, storage, and disposal of hazardous wastes.

**SARA Tier II (Superfund Amendments and Reauthorization Act Tier II Facilities) –** These sites store certain types and amounts of hazardous materials and must be identified under the Community Right to Know Act.

**Toxic Release Inventory (TRI)** – The toxic release inventory list was developed as part of the Emergency Planning and Community Right to Know (Community Right to Know) Act passed in 1986. The Community Right to Know Act requires the reporting of any release of a chemical found on the TRI list.

**UST (Underground Storage Tank) –** Potential contaminant source sites associated with underground storage tanks regulated as regulated under RCRA.

**Wastewater Land Applications Sites** – These are areas where the land application of municipal or industrial wastewater is permitted by DEQ.

**Wellheads –** These are drinking water well locations regulated under the Safe Drinking Water Act. They are not treated as potential contaminant sources.

**NOTE:** Many of the potential contaminant sources were located using a geocoding program where mailing addresses are used to locate a facility. Field verification of potential contaminant sources is an important element of an enhanced inventory.

Where possible, a list of potential contaminant sites unable to be located with geocoding will be provided to water systems to determine if the potential contaminant sources are located within the source water assessment area.